

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-018422**Date Inspected:** 14-Nov-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:****CWI Present:****Yes No****Inspected CWI report:** **Yes No N/A****Rod Oven in Use:** **Yes No N/A****Electrode to specification:** **Yes No N/A****Weld Procedures Followed:** **Yes No N/A****Qualified Welders:** **Yes No N/A****Verified Joint Fit-up:** **Yes No N/A****Approved Drawings:** **Yes No N/A****Approved WPS:** **Yes No N/A****Delayed / Cancelled:** **Yes No N/A****Bridge No:** 34-0006**Component:** Trial Assembly, Tower Jetty and Sub assembly**Summary of Items Observed:**

On this day Caltrans OSM Quality Assurance (QA) Inspector Christopher D'souza was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China. QA Inspector observed and/or found the following:

CWR Verifications**B-CWR 2163 Rev 2 (Crack repair) – Bay 8**

This QA Inspector was notified via email for verification of B – CWR 2163 R0 at 0810 hours the following was observed:

- The component for verification was identified as BK004A2-053
- Weld repair was required on an area where linear indication was observed by magnetic particle inspection on BK004A2-053-014, 015, 017, 019, 020
- ZPMC QC Wang Chuang Xin was present on site to direct and record all repair work.
- WPS to be used for repair was WPS-345-SMAW-1G(1F)-Repair

B-CWR 2196 Rev 0 (Crack repair) – Bay 8

This QA Inspector was notified via email for verification of B – CWR 2196 R0 at 1045 hours the following was observed:

- The component for verification was identified as BK004A2-056
- Weld repair was required on an area where linear indication was observed by magnetic particle inspection on

WELDING INSPECTION REPORT

(Continued Page 2 of 4)

BK004A2-056-014, 015, 017, 019, 020

- ZPMC QC Liu Fa Wen was present on site to direct and record all repair work.
- WPS to be used for repair was WPS-345-SMAW-1G(1F)-Repair

B-CWR 2195 Rev 0 (Buttering) – Bay 8

This QA Inspector was notified via email for verification of B – CWR 2195 R0 at 1045 hours the following was observed:

- The component for verification was identified as BK4A(056) BKPL7A, BKPL7B
- It was observed that BKPL7A, BKPL7B is shorter than design requirements (3mm to 6mm)
- Weld buildup/ buttering is to be performed across its length (l=5331mm)
- ZPMC QC Liu Fa Wen was present on site to direct and record all repair work.
- WPS to be used for repair was WPS-345-FCAW-3G(3F)-Repair

Trial Assembly (D-scan)

B-CWR 2216 Rev 0

This QA Inspector was notified via email for verification of B – CWR2216 R0 at 1010 hours the following was observed:

- The component for verification was identified as SEG068A-045, SEG070A-013 (11BE to 11CE side panel to bottom panel holdback @ E4)
- Weld repair was to be performed on location where rejectable indication was observed during Ultrasonic Testing (UT)
- ZPMC QC An Qiang Xiang was present on site to direct and record all repair work.
- WPS to be used for repair was WPS-345-SMAW-1G(1F)-FCM-Repair-1 and WPS-345-SMAW-4G(4F)-FCM-Repair-1

B-CWR 2217 Rev 0

This QA Inspector was notified via email for verification of B – CWR2217 R0 at 1010 hours the following was observed:

- The component for verification was identified as SEG068A-044, SEG070A-014 (11BE to 11CE side panel to bottom panel holdback @ E3)
- Weld repair was to be performed on location where rejectable indication was observed during Ultrasonic Testing (UT)
- ZPMC QC An Qiang Xiang was present on site to direct and record all repair work.
- WPS to be used for repair was WPS-345-SMAW-1G(1F)-FCM-Repair-1 and WPS-345-SMAW-4G(4F)-FCM-Repair-1

B-CWR 2215 Rev 0

This QA Inspector was notified via email for verification of B – CWR2215 R0 at 1010 hours the following was observed:

- The component for verification was identified as OBW11C - 003 (11CW to 11DW bottom panel transverse splice)
- Weld repair was to be performed on location where rejectable indication was observed during Ultrasonic Testing (UT)
- ZPMC QC An Qiang Xiang was present on site to direct and record all repair work.

WELDING INSPECTION REPORT

(Continued Page 3 of 4)

- WPS to be used for repair was WPS-345-SMAW-1G(1F)-FCM-Repair-1 and WPS-345-SMAW-4G(4F)-FCM-Repair-1

B-CWR 2219 Rev 0

This QA Inspector was notified via email for verification of B – CWR2219 R0 at 1010 hours the following was observed:

- The component for verification was identified as OBW11C – 004, 005 (11CW to 11DW side panel transverse splice @ E7, E8)
- Weld repair was to be performed on location where rejectable indication was observed during Ultrasonic Testing (UT)
- ZPMC QC An Qiang Xiang was present on site to direct and record all repair work.
- WPS to be used for repair was WPS-345-SMAW-3G(3F)-FCM-Repair-1 and WPS-345-SMAW-3G(3F)-FCM-Repair-1

B-CWR 2218 Rev 0

This QA Inspector was notified via email for verification of B – CWR2218 R0 at 1630 hours the following was observed:

- The component for verification was identified as OBW11C - 002 (11CW to 11DW side panel transverse splice @ C5)
- Weld repair was to be performed on location where rejectable indication was observed during Ultrasonic Testing (UT)
- ZPMC QC An Qiang Xiang was present on site to direct and record all repair work.
- WPS to be used for repair was WPS-345-SMAW-3G(3F)-FCM-Repair-1 and WPS-345-SMAW-3G(3F)-FCM-Repair-1

Tower Jetty

T-CWR 704 Rev 1 (UT – Multiple times repair)

This QA Inspector was notified via email for verification of T-CWR 704 R1 at 1600 hours the following was observed:

- The component for verification was identified as Tower (W) cross bracing plate
- Weld repair was to be performed on location where rejectable indication was observed by Ultrasonic Testing (UT) on repair location
- Weld is identified as WSD1-FASA4-2B/E-5
- ZPMC QC Sun Zi Wang was present on site to direct and record all repair work.
- WPS to be used for repair was WPS-345+485-SMAW-2G (2F)-FCM-Repair – 2

T-CWR 707 Rev 1 (UT – Multiple times repair)

This QA Inspector was notified via email for verification of T-CWR 707 R1 at 1600 hours the following was observed:

- The component for verification was identified as Tower (S) cross bracing plate
- Weld repair was to be performed on location where rejectable indication was observed by Ultrasonic Testing (UT) on repair location
- Weld is identified as SSD1-FASA4-1B/E-15

WELDING INSPECTION REPORT

(Continued Page 4 of 4)

- ZPMC QC Sun Zi Wang was present on site to direct and record all repair work.
- WPS to be used for repair was WPS-345+485-SMAW-4G (4F)-FCM-Repair - 2

(D-Scan)

ABF UT report: - UT-13E-004R1

This QA Inspector performed Ultrasonic Testing (UT) on lift 13 OBG components identified as 13BE corner assembly Deck plate to Edge plate weld @ E5 previously accepted by ABF ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3 and Detection of Transverse Planar Discontinuities with Significant Flaw Height Dimension Procedure. The QA Inspector no observed rejectable indications at the time of testing. Weld identification numbers were

CA3013A-002 (13BE DP to EP @ E5)

This QA Inspector performed conventional UT (Ultrasonic Testing) in conjunction with ABF UT department for detection of planar transverse indication.

QA Inspector generated a TL-6027 for this date

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Dsouza,Christopher	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
